

Electric Potential (Voltage)

The energy given to an electron leaving the energy source is called the **electric potential**, or **voltage**. The unit of measure is the **volt (V)**.

Source of Electric Potential	Voltage (V)
• human cell	0.08
• electrochemical cell (eg. AA, D cell)	1.1-2.9
• wall outlet	120, 240
• power station generator	550

The electric potential of an electron leaving a wall outlet terminal is 80x greater than that of a D cell terminal. This is why you receive a serious shock from a wall outlet, but feel nothing when you touch two D cell terminals.

A dry cell contains special chemicals. The chemicals undergo reactions that give their electrons a certain amount of **electric potential energy** (stored energy).

These electrons remain at the **negative terminal** of the cell until the circuit is complete. Then the electrons are released.

Every electron leaving the negative terminal (entering the circuit) must be replaced by another electron entering at the positive terminal (leaving the circuit).

A continuous chain of electrons moving through the circuit creates an **electric current**. These moving electrons release some of their energy to the electrical load in the circuit (eg., light bulb).